

(b) transfecting the eukaryotic host cell to incorporate the DNA construct into the genome of the host cell; and

H1
(c) exposing the DNA construct to a hormone selected from the group consisting of lactogenic hormones, somatogenic hormones and mixtures thereof; wherein the enhancer element comprises the nucleotide sequence TTCTGAGAA, with the proviso that the nucleotide sequence does not contain the DNA sequence of nucleotide sequence SEQ ID NO:1, and wherein the enhancer element is responsive to both lactogenic hormones and somatogenic hormones.

H2
5. (Fifth Amendment) An enhancer element which when used in a DNA construct for transfection of a eukaryotic host cell is responsive to hormonal stimuli, said enhancer element consisting essentially of the nucleotide sequence TTCTGAGAA, wherein the enhancer element is responsive to both lactogenic hormones and somatogenic hormones when used in a DNA construct transfected into the genome of a eukaryotic host cell.

H3
8. (Fourth Amendment) An expression vector comprising a structural gene encoding a desired protein or polypeptide and a promoter, wherein the vector further comprises six enhancer elements, and further wherein at least one of the enhancer elements consists essentially of the nucleotide sequence TTCTGAGAA.

H4
10. (Fifth Amendment) The expression vector according to claim 9, wherein the enhancer element comprises at least one copy of the nucleotide sequence SEQ ID NO:1.

H5
15. (Twice Amended) The enhancer element of claim 5 wherein the enhancer element is responsive to signals generated from both growth hormone and prolactin receptors when used in a DNA construct transfected into the genome of a eukaryotic host cell.

19. (Fourth Amendment) An in vitro method of enhancing the transcription of a gene in a DNA construct,

H6
(a) providing a DNA construct comprising a structural gene and a promoter upstream of the structural gene,

(b) providing the DNA construct with the nucleotide sequence consisting of TTCTGAGAA upstream of the promoter;

(c) transfecting a eukaryotic host cell to incorporate the DNA construct into the genome of the host cell; and

(d) exposing the DNA construct to a hormone selected from the group consisting of lactogenic hormones, somatogenic hormones and mixtures thereof.

H7
27. (Fourth Amendment) An expression vector comprising a structural gene encoding a protein, a promoter, and at least one enhancer element consisting essentially of the nucleotide sequence TTCTGAGAA, wherein the enhancer element is incorporated within the structural gene by transfection.

H8
30. (Third Amendment) A DNA construct comprising a promoter, a structural gene, and at least one enhancer element consisting essentially of the nucleotide sequence TTCTGAGAA, wherein the enhancer element is incorporated within the structural gene by transfection.

44. (Third Amendment) An isolated DNA construct comprising a promoter, a structural gene downstream from said promoter, and six repeats of an enhancer element upstream from said promoter, wherein the enhancer element consists essentially of the sequence TTCTGAGAA.